Table 2-H-18c
Bakersfield to Los Angeles – High-Speed Train Station Evaluation Matrix
Bakersfield to Sylmar Segment – Antelope Valley Station Options

Station = Station Carried Forward **Station** = Station Eliminated = Primary or Secondary Reason for Elimination

Evaluation Criteria	Antelope Valley		
	Lancaster Metrolink Station	**Palmdale Transportation Center**	**Palmdale Boulevard**
Maximize Ridership/Revenue Potential.			
Travel Time	Not Applicable	Not Applicable	Not Applicable
Length	Not Applicable	Not Applicable	Not Applicable
Population/Employment Catchment	1990 10-mile radius: 169,892 persons; 74,531 employed Lancaster 1990-2000 population growth: 22%	1990 10-mile radius: 195,660 persons; 86,755 employed 1990 20-mile radius: 252,151 persons: 112,254 employed Palmdale 1990-2000 population growth: 69%	1990 10-mile radius: 195,660 persons; 86,755 employed 1990 20-mile radius: 252,151 persons: 112,254 employed Palmdale 1990-2000 population growth: 69%
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Maximize Connectivity and Accessibility.			
Intermodal Connections	• Airport(Palmdale) – 6.4 mi. (10.2 km) • Freeways– SR-14: 2.3 mi. (3.7 km) • Local Bus route on Sierra Highway • Metrolink – existing station site	• Airport(Palmdale) – 2.3 mi. (3.7 km) • Freeways – SR-14: 1.2 mi. (1.9 km) • Local Bus – on Sierra Highway (Expected hub with Transportation Center Development) • Metrolink – on adjacent tracks	• Airport(Palmdale) – 2.6 mi. (4.2 km) • Freeways – 1 mi. (1.6 km) • Local Bus route on Sierra Highway • Metrolink – on adjacent tracks
	(#	(#	' #
Minimize Operating and Capital Costs			
Length	• No implications.	• No implications.	• No implications.
	) #	) #	) #

Evaluation Criteria	Antelope Valley		
	Lancaster Metrolink Station	**Palmdale Transportation Center**	**Palmdale Boulevard**
Operational Issues	• Not suitable for Aqueduct alignments (Options 4 and 4A).	• No implications.	• No implications.
	(#	) #	) #
Construction Issues	• No significant issues.	• No significant issues.	• No significant issues.
	) #	) #	) #
Capital Cost	• Aerial, but no significant construction issues anticipated.	• At grade.	• At grade.
	(#	) #	) #
Right-of-Way Issues/Cost	• Moderately developed area. • Railroad relocation • Requires modification to existing Metrolink facility	• Relatively undeveloped area. • Railroad relocation • Bikeway relocation	• Moderately urbanized area. • Railroad relocation • Park disturbance • Bikeway relocation
	) #	(#	' #

Evaluation Criteria	Antelope Valley		
	Lancaster Metrolink Station	**Palmdale Transportation Center**	**Palmdale Boulevard**
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Land Use Compatibility and Conflicts	• Sierra Highway and Lancaster Blvd. may need to be widened to accommodate traffic caused by the station. The capacity and size of the above roads are not mentioned in the Lancaster General Plan. • Commercial and light industry are the land uses adjacent to the track and station area that may be affected by the station location. • A Metrolink station is currently on the proposed station site. Bus access also exists.	• The station site is located along Sierra Highway, which is listed in the Palmdale General Plan as an existing or planned 8-lane Regional Arterial. Sierra Highway would have to be modified to accommodate the proposed station and the proposed HSR track as shown in the preliminary alignment diagrams. It is planned that Highway 138 (currently existing Palmdale Blvd.) be shifted north to Technology Drive (currently existing Avenue P-8). • Land use that is adjacent to the station location is zoned for industrial use. • Based on interviews with the City of Palmdale Planning Department, the City of Palmdale has developed plans for a transportation center adjacent to the planned high-speed train station site. This proposed transportation center would potentially provide intermodal connections such as connections to the potential Palmdale International Airport, bus, and Metrolink. • Antelope Valley Union High School District has plans for a continuation high school in the vicinity of the proposed station site. • There is existing residential development to the southwest of the proposed station location. There is an existing park approximately 0.4 miles away from the proposed station location. There is an existing elementary school approximately 0.75 miles from the proposed station location.	• Most of the arterial roads surrounding the proposed station are “Major Arterials” planned to be 6-lane roads. Palmdale Blvd. is a “Major Arterial” planned, according to the Palmdale General Plan, to be a 6-lane road. Sierra Highway is planned to be an 8-lane road. • The station would be on and adjacent to land use designated “Community Commercial” and “Commercial Manufacturing” and near “Public Facility” land use. The City of Palmdale City Hall and other government buildings are currently on the land designated “Public Facility”. • There is an existing elementary school approximately 0.5 miles away from the proposed station location. • There is the possibility of intermodal connections via the bus route along Highway 138 (Palmdale Blvd.). • The City of Palmdale has plans to relocate Highway 138 to Avenue P-8.
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Evaluation Criteria	Antelope Valley		
	Lancaster Metrolink Station	**Palmdale Transportation Center**	**Palmdale Boulevard**
Visual Quality Impacts	• Commercial first tier viewers along Sierra Hwy.	• Residences west and south of station area. Station will be on vacant lot proposed for the Palmdale Transportation Center. Commercial uses across Sierra Highway.	• Commercial area. Library and City Hall are across Sierra Highway. Bike trail adjacent to station site.
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Minimize Impacts on Natural Resources.			
Water Resources	No impacts.	No Impacts.	No impacts.
	) #	) #	) #
Floodplain Impacts	In a 500-year floodplain. Station would be elevated.	No impact.	In a 500-year floodplain.
	(#	) #	' #
Threatened & Endangered Species Impacts	No impacts.	Potential for impact to several sensitive species.	Minimal impact to native habitat and sensitive species.
	) #	' #	(#
Minimize Impacts on Social and Economic Resources.			
Environmental Justice Impacts (Demographics)	1990 Minority population: 622 1990 In-poverty households: 194	1990 Minority population: 19 1990 In-poverty households: 5	1990 Minority population: 722 1990 In-poverty households: 216
	(#	) #	) #
Farmland Impacts	The station is located in an urbanized area with no developable farmland.	The station is located in an urbanizing area with no developable farmland.	The station is located in an urbanized area with no developable farmland.
	) #	) #	) #

Evaluation Criteria	Antelope Valley		
	Lancaster Metrolink Station	**Palmdale Transportation Center**	**Palmdale Boulevard**
Minimize Impacts on Cultural Resources.			
Cultural Resources Impacts	• Station is located one block from recorded historical site (Cedar Complex); may have some impact on visual quality. • Moderate potential for cultural resources due to location in city center.	• No resources recorded on the GIS. • Low to unknown potential for cultural resources.	• No resources recorded on the GIS. • Low to moderate potential for cultural resources due to location in city center.
	(#	) #	(#
Parks & Recreation/Wildlife Refuge Impacts	No park resources located in the area.	Small park/bikeway by the Palmdale City Hall. Bikeway extends north to station site.	Small park/bikeway by the Palmdale City Hall.
	) #	(#	(#
Maximize Avoidance of Areas with Geologic and Soils Constraint.			
Soils/Slope Constraints	• Intermediate hardness units considered unlikely to marginal relative to compressibility. • Medium risk of subsidence potential. • Generally older, harder formations and rock not likely to be compressible.	• Intermediate hardness units considered unlikely to marginal relative to compressibility. • Medium risk of subsidence potential. • Generally older, harder formations and rock not likely to be compressible.	• Intermediate hardness units considered unlikely to marginal relative to compressibility. • Medium risk of subsidence potential. • Generally older, harder formations and rock not likely to be compressible.
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Seismic Constraints	• Medium risk of probable ground motion from earthquakes. • Medium to high liquefaction potential. • No active fault crossings.	• High probable ground motion from earthquakes. • Low potential for liquefaction. • No active fault crossings.	• High probable ground motion from earthquakes. • Low potential for liquefaction. • No active fault crossings.
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Maximize Avoidance of Areas with Potential Hazardous Materials.			
Hazardous Materials/Waste Constraints	• There are no CERCLIS, SPL, or SCL sites near the station location.	• There are no CERCLIS, SPL, or SCL sites near the station location.	• There are no CERCLIS, SPL, or SCL sites near the station location.
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Least Favorable **Most Favorable**